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September 12, 2000

ORIGINAL PLAN

Via Facsimile and Overnight Mail

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U.S. Environmental Protection Agency,
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Re: Nicor Mercury Sites - Proposed Work Plan

Dear Tom and Brad:

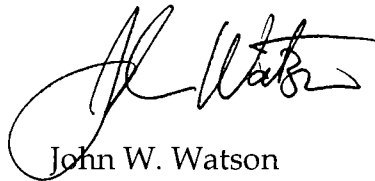
Enclosed you will find a copy of the proposed Removal Action Work Plan for the Chicago Heights Iron & Supply Co. Site to satisfy Nicor Gas's ("Nicor") obligations under the Section 106 Order issued by U.S. EPA on September 6, 2000. As you know, we formally requested a conference with you to discuss the scope of the Order and our proposed Work Plan. At your suggestion, we are sending you the Work Plan for review prior to any conference (be it by phone or in person) being held. Based on our conversation of earlier today, we understand that approval of the Work Plan may be delayed in light of the need for Illinois EPA and the Illinois Attorney General's office to review the Work Plan as well.

Please call me at your earliest convenience to discuss the timing of your review and when we might be in a position to confer regarding the details of the Work Plan. We will send to you via messenger tomorrow morning several copies of the Work Plan

Thomas Krueger Esq.
Bradley Stimple
September 12, 2000
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and related documents for your review and distribution to Illinois EPA and the Attorney General's office. I look forward to hearing from you soon.

Very truly yours,

A handwritten signature in black ink, appearing to read "John W. Watson", with a large, stylized initial "J" and a horizontal flourish extending to the right.

JWW/ac
Enclosure
cc: Richard Tappan
Alexander Allison

CH02/22082513.1

REMOVAL ACTION WORK PLAN

CHICAGO HEIGHTS IRON & SUPPLY CO.

1715 Wentworth Ave.
Chicago Heights, Illinois

September 11, 2000

Prepared for
NICOR GAS

Prepared by
James E. Huff, P.E.
Lisa Paulson

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1. INTRODUCTION

This Removal Action Work Plan sets forth the actions Nicor Gas ("Nicor") will undertake to satisfy its obligations under Paragraph 3 of the Unilateral Administrative Order issued by the United States Environmental Protection Agency (U.S. EPA) to Nicor and Chicago Heights Iron & Supply Co., ("Chicago Heights Iron & Supply") on September 6, 2000 pursuant to the Agency's authority under Section 106 of the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA"). Specifically, this Work Plan provides for the implementation of certain response activities to address potential impacts associated with the handling of mercury type gas regulators at the Chicago Heights Iron and Supply scrap yard located at 1715 Wentworth Avenue in Chicago Heights, Illinois.

The Chicago Heights Iron & Supply Company is located at 1715 Wentworth Avenue in Chicago Heights, Illinois. Figure 1-1 depicts the site location. The site is located in an industrial area. South of the facility is a vacant lot and farther to the south is a railroad track. A residential area is located along 20th Street, on the other side of the railroad tracks. West of the facility, across Wentworth Avenue is a vacant lot. The facility is bordered to the north by additional railroad tracks, and north of these tracks, along the east and west side of Wentworth Avenue are commercial/industrial buildings. Adjacent to the east of the facility is the Ozinga Concrete plant.

As appropriate, Nicor may utilize the procedures set forth in this Work Plan to the extent that removal activities are performed at additional scrap yards. Upon completion of the work set forth in this work plan, Nicor and U.S. EPA will discuss whether modifications are necessary prior to the commencement of work at other sites. A decision for each scrap yard will depend on the amount of Nicor scrap metal to be sorted, the anticipated number of mercury type regulators present, access, and how efficiently Mercury Waste Solutions can sort the scrap metal.

Figure 1-1

2. SCRAP METAL REMOVAL

IEPA representatives recently conducted an inspection at the Chicago Heights Iron & Supply facility. During that inspection, IEPA representatives identified certain discrete scrap metal storage areas where mercury-type regulators from Nicor facilities may have been stored and processed and where IEPA screening with a Jerome Meter indicated the presence of mercury. With respect to these discrete storage areas, rather than sort through all existing materials, Nicor shall remove all of the scrap metal stored in these areas as hazardous waste (D009) and transport it to Mercury Waste Solutions, a RCRA licensed treatment and storage facility in Union Grove, Wisconsin. Specifically the following removal action protocol will be followed:

Removal Action

- Establish an exclusion zone, as depicted in Figure 2-1.
- Establish a decontamination area for personnel and one for vehicles entering and exiting the exclusion zone, as depicted in Figure 2-1.
- Position a truck with a rolloff box on the vehicle, lined with 6-mil plastic, immediately adjacent to the scrap pile.
- Using a crane or hydraulic excavator equipped with a hydraulic grapppler, transfer all scrap metal into the rolloff box.
- Cover the rolloff box and apply DOT (Hazardous Class 9) and RCRA (D009) labels.
- Relocate the truck to the truck decontamination area, as depicted on Figure 2-1.
- Screen the tires on the truck with a Jerome Meter. If any readings are above 0.010 mg/cu m, decontaminate the tire(s) with a mercury decontamination solution, in the truck decontamination area. Once the mercury levels are below 0.010 mg/cu m, the driver will be provided with a signed manifest,^{1/} and the back two copies will be retained. The truck will proceed to Mercury Waste Solutions^{2/} or Heritage Industrial Services in Lemont.
- Once the grapppler is no longer effective, the remainder of the scrap metal and any debris will be placed in the rolloff boxes by personnel in Level C PPE.
- Upon completion of the scrap metal removal, the grapppler and tires/tracks will be decontaminated using the same protocol as with the truck tires.

^{1/} The generator and associated identification number will be the Nicor Gas Glenwood facility at 19199 Glenwood Road, Glenwood, Illinois 60425, ID# ILDO45200367.

^{2/} Mercury Waste Solutions, Inc., 21211 Durand Avenue, Union Grove, WI 53182-9711, US EPA ID# WIR000000356. Additional information on Mercury Waste Solutions is included in Appendix A.

Figure 2-1

- All decontamination water will be collected in a 55 gallon drum, tested and disposed of as hazardous or special waste based on the TCLP mercury results, at Heritage's Indianapolis aqueous facility.
- All visible mercury will be vacuumed from the ground utilizing a mercury vacuum equipped with a mercury trap, a post carbon filter, and a HEPA filter to trap any mercury vapor and dust. The vacuum filters and any mercury in the trap will be sent to Mercury Waste Solutions for retorting.
- The visqueen used during material transfer and any used during decontamination will be placed in the rolloff boxes for disposal as hazardous waste (D009).

At Mercury Waste Solutions, each rolloff box will be brought into a sorting room which has a carbon filtration system on the air supply. The following protocol will be followed:

- The scrap metal will be placed on sorting trays.
- All scrap metal will be inspected for visible mercury and for any mercury-type regulators. All scrap metal with visible mercury and mercury-type regulators will be retorted.
- The remaining scrap metal will be screened with a Jerome Meter. Any metal exhibiting a reading greater than 0.025 mg/cu m will be placed in 1 cu yd boxes for microencapsulation and landfilling at EQ³, as a mercury contaminated hazardous waste (D009).
- The remaining scrap metal (exhibiting less than 0.025 mg/cu m mercury vapor) will be shipped to a scrap metal reprocessing facility.⁴
- Once the rolloff box is emptied, the plastic liner will be removed and processed through the mercury retort.

³ EQ is Wayne Disposal Inc. 49350 North I-94 Service Drive, Belleville, MI 48111. USEPA ID# MID048090633. See Appendix B.

⁴ / The 0.025 mg/cu m is the ACGIH TLV Time Weighted Average recommended for elemental mercury, for 8 hour exposure. The OSHA PEL ceiling concentration for mercury is 0.100 mg/cu m. By assuring no scrap exceeds 0.025 mg/cu m mercury vapors, the workers at the scrap metal facility cannot be over exposed to mercury.

3. SOIL SAMPLING

3.1 Soil Screening and Soil Removal Procedures

After all of the scrap metal and miscellaneous debris from the designated area has been removed, and any visible mercury vacuumed up, a 10-ft by 10-ft sampling grid will be set up, as depicted in Figure 3-1. Although not depicted in Figure 3-1, there is a metal shear located in the northwest corner of the exclusion zone. The shear side and drop off side of the shear will be included in the sampling grid. The following procedure will be utilized:

1. Set out a 10-ft by 10-ft grid with flagging, over the entire area, labeling the flags from 1 to 10 and A to O, as depicted in Figure 3-1.
2. Using the Jerome 431-X or 411 meter, with particulate filter, readings will be taken at each flagged area, at a height of 1-inch +/- 0.5 inch above the ground level. The results will be recorded. At any location where a positive reading is obtained, a second reading will be taken. The average result will be utilized.
3. At any location where a reading above 0.01 mg/cu m is obtained, a backhoe will remove 6 inches of soil from the 10-ft by 10-ft area, and the area will be re-tested with the Jerome Meter. This procedure will continue until the entire area achieves 0.01 mg/cu m mercury vapor.
4. The excavated soil will be loaded into a lined rolloff box located on the back of the truck.
5. The flags will remain in place at the completion of the Jerome meter screening.
6. At the completion of this phase, the rolloff box will be removed from the truck, placed on the site, sampled, and covered.
7. The soil will be analyzed for TCLP RCRA metals. The soil will be disposed of as a RCRA hazardous waste or as a special waste based on the sampling results.

3.2 Soil Confirmation Sampling Protocol

The following protocol will be used for confirming that the mercury has been successfully removed from the site.

1. From each row (in the east to west direction, or 1 to 10 on Figure 3-1), a soil sample from the location having the highest final Jerome Meter reading will be sampled from 0 to 6 inches using a hand auger, if possible, or a shovel and pick ax if the ground is too firm for the hand auger. The soil will be placed into a stainless steel mixing bowl, mixed thoroughly, and placed in two 4-ounce virgin laboratory jars for analysis.

Figure 3-1

2. Based on the preliminary area of 100-ft by 150-ft, approximately one confirmation sample per 1000 sq ft will be collected.
3. All samples will be labeled with the site, date, time, and sample grid location, and initialed by sampler. All samples will be placed in individual plastic bags and sealed to avoid cross contamination, and immediately placed in a cooler with ice. Care will be taken in filling the coolers to avoid breakage. A chain of custody will accompany the samples to the laboratory.
4. Between samples, the sampling equipment will be cleaned with the following protocol:
 - Alconox Wash with potable water
 - Tap water dip rinse
 - Mercury decontamination solution
 - Tap water dip rinse, separate container
 - Distilled water spray rinse
 - Air Dry
5. The samples will be shipped to Test America's Bartlett Laboratory for analysis of total mercury using method SW846 – 7471A, which has a method detection limit of 0.04 mg/kg. In addition, the soil pH and % solids will be measured, so that it can be determined whether the soil migration to ground water pathway objectives are achieved and to report the results on a dry weight basis.
6. Duplicates will be collected for mercury and pH on one in ten samples. Field blanks and trip blanks will be collected daily when conducting confirmation sampling.
7. Test America will provide results three working days from receipt. This will allow time for retesting if the results are outside of the calibration range, and the completion of the necessary QA/QC checks as described in the QAPP.
8. Any confirmation samples above the objectives will necessitate further soil removal and additional confirmation testing.

4. SOIL CLEANUP OBJECTIVES

The Chicago Heights Iron & Supply facility is located in an industrial area, surrounded by industrial properties. Response actions conducted by Nicor at the site will be deemed complete upon satisfaction of appropriate commercial/industrial remediation objectives for mercury as provided at 35 Ill. Adm. Code Part 742. For reference purposes, the Tier 1 commercial/industrial remediation objective for mercury are as follows:

Ingestion

Industrial/Commercial Objective (I/C)	610 mg/kg
Construction Worker Objective (CW)	61 mg/kg

Inhalation

Industrial/Commercial Objective (I/C)	540,000 mg/kg
Construction Worker Objective (CW)	52,000 mg/kg

Soil migration to ground water

<u>Soil pH</u>	<u>Total Mercury, mg/kg</u>
4.5 to 4.74	0.01
4.75 to 5.24	0.01
5.25 to 5.74	0.03
5.75 to 6.24	0.15
6.25 to 6.64	0.89
6.65 to 6.89	2.1
6.90 to 7.24	3.3
7.25 to 7.74	6.4
7.75 and above	8.0

Nicor shall utilize the remediation objectives provided above or establish site specific standards or remediation strategies consistent with the requirements of 35 Ill. Adm. Code Part 742.

5. CONTRACTOR AND SCHEDULE

Heritage Industrial Services, L.L.C. will be the removal contractor under the direction of Huff & Huff, Inc., consultant to Nicor Gas. Mercury Waste Solutions, Inc., in Union Grove, Wisconsin will serve as a subcontractor to Heritage Industrial Services for this project. A crane operator will be provided with the crane; however, the specific firm has not been finalized. Test America will conduct the analytical work.

Based upon the coordination requirements, the Contractor will mobilize to the site no later than three days after authorization from U.S. EPA and site access is secured. The scrap metal removal is expected to take two days, the soil screening/soil removal two days, and confirmation sampling one day. Analytical results will be obtained in three business days. Thus, the following schedule is planned:

	<u>Business Days</u>
- Authorization to Proceed	0
- Mobilize to Site.....	3
- Complete Scrap Metal Removal	5
- Soil Screening and Soil Removal	7
- Confirmation Testing.....	8
- Analytical Results Received	11
- Remobilize to Site.....	14
- Complete Soil Removal.....	15
- Confirmation Testing.....	16
- Analytical Results Received	19

Thus, approximately three weeks will be needed to complete the work at this facility. Remedial Action Completion Report will be prepared and issued within six weeks of completion of the removal action. This will allow time for receiving return manifests, processing at Waste Mercury Solutions (which is limited to one rolloff box per day), and landfilling at EQ.